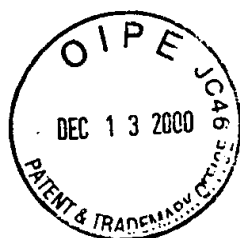


0400

OIPE #5



RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/724,341

DATE: 12/08/2000
TIME: 14:47:41

Input Set : A:\P1805R1.txt
Output Set: N:\CRF3\12082000\I724341.raw

ENTERED

3 <110> APPLICANT: AVI J. ASHKENAZI
4 KELLY H. DODGE
5 IQBAL GREWAL
6 KYUNG JIN KIM
7 SCOT A. MARSTERS
8 ROBERT M. PITTI
9 MINHONG YAN
11 <120> TITLE OF INVENTION: USES OF AGONISTS AND ANTAGONISTS TO MODULATE ACTIVITY
12 OF TNF-RELATED MOLECULES
14 <130> FILE REFERENCE: P1805R1
W--> 16 <140> CURRENT APPLICATION NUMBER: US/09/724,341
16 <141> CURRENT FILING DATE: 2000-11-28
18 <150> PRIOR APPLICATION NUMBER: US 60/182,938
19 <151> PRIOR FILING DATE: 2000-02-16
21 <150> PRIOR APPLICATION NUMBER: US 60/226,986
22 <151> PRIOR FILING DATE: 2000-08-22
24 <160> NUMBER OF SEQ ID NOS: 14
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 1377
28 <212> TYPE: DNA
29 <213> ORGANISM: Homo sapiens
31 <400> SEQUENCE: 1
32 agcatcctga gtaatgagtg gcctgggccc gagcaggcga ggtggccgga 50
34 gccgtgtgga ccaggaggag cgctttccac agggcctgtg gacgggggtg 100
36 gctatgagat cctgccccga agagcagtac tgggaltcctc tgctgggtac 150
38 ctgcatgtcc tgcuaaaacca tttgcaacca tcagagccag cgcacctgtg 200
40 cagccttctg caggctactc agctgccgca aggagcaagg caagttctat 250
42 gaccatctcc tgagggaactg catcagctgt gcctccatct gtggacagca 300
44 ccctaagcaa tgtgcatact tctgtgagaa caagctcagg agccagtgga 350
46 accttcacc agagctcagg agacagcggg gtggagaagt tgaaaacaat 400
48 tcagacaact cgggaaggta ccaaggattg gagcacagag gctcagaagc 450
50 aagtcagct ctccccgggc tgaagctgag tgcagatcag gtggccctgg 500
52 tctacagcac gctggggctc tgctgtgtg ccgtcctcty ctgcttctg 550
54 gtggcgggtg cctgcttccct caagaagagg ggggatacct gctcctgcca 600
56 gccccctca aggccccgtc aaagtccggc caagtcttcc caggatcacg 650
58 cgatggaagc cggcagccct gtgagcaat cccccgagcc agtggagacc 700
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62 cagccttggg acccccagcc ccacttgtgc tggaaagtgg ggtgcccaca 800
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70 aaagagaggt ggggagagg gaggagagata tgaggagaga gagacagagg 1000
72 aggcagaaag ggagagaaac agaggagaca gagagggaga gagagacaga 1050
74 gggagagaga gacagagggg aagagaggca gagagggaaa gaggcagaga 1100
76 aggaaagaga caggcagaga aggagagagg cagagaggga gagaggcaga 1150
78 gagggagaga ggcagagaga cagagaggga gagagggaca gagagagata 1200
80 gagcaggagg tgggggcact ctgagtccca gttcccagtg cagctgtagg 1250

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JAN - 2 2001
OIPE/JCWS

RAW SEQUENCE LISTING DATE: 12/08/2000
 PATENT APPLICATION: US/09/724,341 TIME: 14:47:41

Input Set : A:\P1805R1.txt
 Output Set: N:\CRF3\12082000\I724341.raw

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82  tcgtcatcac ctaaccacac gtgcaataaa gtctctgtgc ctgctgctca 1300
84  cagccccoga gagcccccc tcttgagaaa taaaaccttt ggcagctgcc 1350
86  ctctctcaaa aaaaaaaaaa aaaaaaa 1377
88  <210> SEQ ID NO: 2
89  <211> LENGTH: 293
90  <212> TYPE: PRT
91  <213> ORGANISM: Homo sapiens
93  <400> SEQUENCE: 2
94  Met Ser Gly Leu Gly Arg Ser Arg Arg Gly Gly Arg Ser Arg Val
95      1              5              10              15
97  Asp Gln Glu Glu Arg Phe Pro Gln Gly Leu Trp Thr Gly Val Ala
98      20              25              30
100 Met Arg Ser Cys Pro Glu Glu Gln Tyr Trp Asp Pro Leu Leu Gly
101      35              40              45
103 Thr Cys Met Ser Cys Lys Thr Ile Cys Asn His Gln Ser Gln Arg
104      50              55              60
106 Thr Cys Ala Ala Phe Cys Arg Ser Leu Ser Cys Arg Lys Glu Gln
107      65              70              75
109 Gly Lys Phe Tyr Asp His Leu Leu Arg Asp Cys Ile Ser Cys Ala
110      80              85              90
112 Ser Ile Cys Gly Gln His Pro Lys Gln Cys Ala Tyr Phe Cys Glu
113      95              100             105
115 Asn Lys Leu Arg Ser Pro Val Asn Leu Pro Pro Glu Leu Arg Arg
116     110             115             120
118 Gln Arg Ser Gly Glu Val Glu Asn Asn Ser Asp Asn Ser Gly Arg
119     125             130             135
121 Tyr Gln Gly Leu Glu His Arg Gly Ser Glu Ala Ser Pro Ala Leu
122     140             145             150
124 Pro Gly Leu Lys Leu Ser Ala Asp Gln Val Ala Leu Val Tyr Ser
125     155             160             165
127 Thr Leu Gly Leu Cys Leu Cys Ala Val Leu Cys Cys Phe Leu Val
128     170             175             180
130 Ala Val Ala Cys Phe Leu Lys Lys Arg Gly Asp Pro Cys Ser Cys
131     185             190             195
133 Gln Pro Arg Ser Arg Pro Arg Gln Ser Pro Ala Lys Ser Ser Gln
134     200             205             210
136 Asp His Ala Met Glu Ala Gly Ser Pro Val Ser Thr Ser Pro Glu
137     215             220             225
139 Pro Val Glu Thr Cys Ser Phe Cys Phe Pro Glu Cys Arg Ala Pro
140     230             235             240
142 Thr Gln Glu Ser Ala Val Thr Pro Gly Thr Pro Asp Pro Thr Cys
143     245             250             255
145 Ala Gly Arg Trp Gly Cys His Thr Arg Thr Thr Val Leu Gln Pro
146     260             265             270
148 Cys Pro His Ile Pro Asp Ser Gly Leu Gly Ile Val Cys Val Pro
149     275             280             285
151 Ala Gln Glu Gly Gly Pro Gly Ala
152     290
154 <210> SEQ ID NO: 3

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RAW SEQUENCE LISTING

DATE: 12/08/2000

PATENT APPLICATION: US/09/724,341

TIME: 14:47:41

Input Set : A:\P1805R1.txt

Output Set : N:\CRF3\12082000\I724341.raw

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155 <211> LENGTH: 995
156 <212> TYPE: DNA
157 <213> ORGANISM: Homo sapiens
159 <400> SEQUENCE: 3
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162 tgccgcgaag acacagacag cccccgtaag aaccacacgaa gcaggcgaag 100
164 ttcattgttc tcaacattct agctgctctt gctgcatttg ctctggaatt 150
166 cttgttagaga tattacttct ccttccaggc tgttctttct gtagctccct 200
168 tgttttcttt ttgtgatacat gttgcagatg gctgggcagt gctcccaaaa 250
170 tgaatatatt gacagtttgt tgcattgttg cataccttgt caacttcgat 300
172 gttcttctaa tactctctct ctaacatgtc agcgttattg taatgcaagt 350
174 gtgaccaatt cagtgaagg aacgaatgag attctctgga cctgtttggg 400
176 actgagctta ataatttctt tggcagtttt cgtgctattg tttttgctaa 450
178 ggaagataag ctctgaacca ttaaaggagc agtttaaaaa cacaggatca 500
180 ggtctctcgg gcattgctaa cattgacctg gaaaagagca ggaactggtg 550
182 tgaatttatt ctctcagagc gctcgaagta cacggtggaa gaatgcacct 600
184 gtgaagactg catcaagagc aaaccgaagg tcgactctga ccattgcttt 650
186 ccactccacg ctatggagga agcgcaaac attcttctca ccacgaaaaa 700
188 gaatgactat tgcgaagacc tgccagctgc tttgagtgtc acggagatag 750
190 agaaatcaat ttctgctagg taattaaaca ttctgactcg agcagtacca 800
192 ctttaaaaaa cttttgtcag aatagatgat gtgtcagatc tctttaggat 850
194 gactgtattt ttcagttgac gatacagctt ttctctctct aactgtggaa 900
196 actctttatg ttatgatata ttctctaggt tactgttggg agcttaattg 950
198 tagaaaactc cttggtttca tgattaaagt cttttttttt cctga 995
200 <210> SEQ ID NO: 4
201 <211> LENGTH: 184
202 <212> TYPE: PRT
203 <213> ORGANISM: Homo sapiens
205 <400> SEQUENCE: 4
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207 1 5 10 15
209 Ser Leu Leu His Ala Cys Ile Pro Cys Gln Leu Arg Cys Ser Ser
210 20 25 30
212 Asn Thr Pro Pro Leu Thr Cys Gln Arg Tyr Cys Asn Ala Ser Val
213 35 40 45
215 Thr Asn Ser Val Lys Gly Thr Asn Ala Ile Leu Trp Thr Cys Leu
216 50 55 60
218 Gly Leu Ser Leu Ile Ile Ser Leu Ala Val Phe Val Leu Met Phe
219 65 70 75
221 Leu Leu Arg Lys Ile Ser Ser Glu Pro Leu Lys Asp Glu Phe Lys
222 80 85 90
224 Asn Thr Gly Ser Gly Leu Leu Gly Met Ala Asn Ile Asp Leu Glu
225 95 100 105
227 Lys Ser Arg Thr Gly Asp Glu Ile Ile Leu Pro Arg Gly Leu Glu
228 110 115 120
230 Tyr Thr Val Glu Glu Cys Thr Cys Glu Asp Cys Ile Lys Ser Lys
231 125 130 135
233 Pro Lys Val Asp Ser Asp His Cys Phe Pro Leu Pro Ala Met Glu
234 140 145 150

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RAW SEQUENCE LISTING

DATE: 12/08/2000

PATENT APPLICATION: US/09/724,341

TIME: 14:47:42

Input Set : A:\P1805R1.txt

Output Set: N:\CRF3\12082000\I724341.raw

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236  Glu Gly Ala Thr Ile Leu Val Thr Thr Lys Thr Asn Asp Tyr Cys
237              155                      160                      165
239  Lys Ser Leu Pro Ala Ala Leu Ser Ala Thr Glu Ile Glu Lys Ser
240              170                      175                      180
242  Ile Ser Ala Arg
245 <210> SEQ ID NO: 5
246 <211> LENGTH: 858
247 <212> TYPE: DNA
248 <213> ORGANISM: Homo sapiens
250 <400> SEQUENCE: 5
251  atggatgact ccacagaaag ggagcagtc cgccttactt cttgccttaa 50
253  gaaaagagaa gaaatgaaac tgaaggagtg tgtttccatc ctcccacgga 100
255  aggaaagccc ctctgtccga tcttccaaag acggaaaagt gctggctgca 150
257  accttgcctg tggcactgct gtcttgcctg ctacacgtgg tgtctttcta 200
259  ccaggtggcc gccctgcaag gggacctggc cagcctccgg gcagagctgc 250
261  aqggccacca cgcggagaag ctgccagcag gacagggagc ccccaaggcc 300
263  ggcttggagg aagctccagc tgtcaccgcg ggactgaaaa tctttgaacc 350
265  accagctcca ggagaaggca actccagtca gaacagcaga aataagcgtg 400
267  ccgttcaggg tccagaagaa acagtcactc aagactgctt gcaactgatt 450
269  gcagacagtg aaacaccaac tatacaaaaa ggatcttaca catcttcttc 500
271  atggcttctc agcttttaaa ggggaagtgc cctagaagaa aaagagaata 550
273  aatatattgt caaagaaact ggttactttt ttatatatgg tcaggtttta 600
275  tatactgata agacctacgc catgggacat ctaattcaga ggaagaaggt 650
277  ccatgtcttt ggggatgaat tgagtctggt gactttgttt cgatgtattc 700
279  aaaaatatgc tgaacacact cccaataatt cctgctattc agctggcatt 750
281  gcaaaactgg aagaaggaga tgaactccaa cttgcaatc caagagaaaa 800
283  tgcacaaata tcactggatg gagatgtcac attttttggg gcattgaaac 850
285  'tgctgtga 858
287 <210> SEQ ID NO: 6
288 <211> LENGTH: 285
289 <212> TYPE: PRT
290 <213> ORGANISM: Homo sapiens
292 <400> SEQUENCE: 6
293  Met Asp Asp Ser Thr Glu Arg Glu Gln Ser Arg Leu Thr Ser Cys
294      1              5              10              15
296  Leu Lys Lys Arg Glu Glu Met Lys Leu Lys Glu Cys Val Ser Ile
297      20              25              30
299  Leu Pro Arg Lys Glu Ser Pro Ser Val Arg Ser Ser Lys Asp Gly
300      35              40              45
302  Lys Leu Leu Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Cys Cys
303      50              55              60
305  Leu Thr Val Val Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp
306      65              70              75
308  Leu Ala Ser Leu Arg Ala Glu Leu Gln Gly His His Ala Glu Lys
309      80              85              90
311  Leu Pro Ala Gly Ala Gly Ala Pro Lys Ala Gly Leu Glu Glu Ala
312      95              100             105
314  Pro Ala Val Thr Ala Gly Leu Lys Ile Phe Glu Pro Pro Ala Pro
315      110             115             120

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RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/724,341

DATE: 12/08/2000
 TIME: 14:47:42

Input Set : A:\P1805R1.txt
 Output Set: N:\CRF3\12082000\I724341.raw

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320 Gln Gly Pro Glu Glu Thr Val Thr Gln Asp Cys Leu Gln Leu Ile
321                               140                               145                               150
323 Ala Asp Ser Glu Thr Pro Thr Ile Gln Lys Gly Ser Tyr Thr Phe
324                               155                               160                               165
326 Val Pro Trp Leu Leu Ser Phe Lys Arg Gly Ser Ala Leu Glu Glu
327                               170                               175                               180
329 Lys Glu Asn Lys Ile Leu Val Lys Glu Thr Gly Tyr Phe Phe Ile
330                               185                               190                               195
332 Tyr Gly Gln Val Leu Tyr Thr Asp Lys Thr Tyr Ala Met Gly His
333                               200                               205                               210
335 Leu Ile Gln Arg Lys Lys Val His Val Phe Gly Asp Glu Leu Ser
336                               215                               220                               225
338 Leu Val Thr Leu Phe Arg Cys Ile Gln Asn Met Pro Glu Thr Leu
339                               230                               235                               240
341 Pro Asn Asn Ser Cys Tyr Ser Ala Gly Ile Ala Lys Leu Glu Glu
342                               245                               250                               255
344 Gly Asp Glu Leu Gln Leu Ala Ile Pro Arg Glu Asn Ala Gln Ile
345                               260                               265                               270
347 Ser Leu Asp Gly Asp Val Thr Phe Phe Gly Ala Leu Lys Leu Leu
348                               275                               280                               285
350 <210> SEQ ID NO: 7
351 <211> LENGTH: 1348
352 <212> TYPE: DNA
353 <213> ORGANISM: Homo sapiens
355 <400> SEQUENCE: 7
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358 gaggggtggag ggtctcaagg caacgctggc cccacgacgg agtgccagga 100
360 gcactaacag tacccttagc ttgctttcct cctccctcct ttttattttc 150
362 aagttcctttt ttatttctcc ttgcgttaaca accttcttcc cttctgcacc 200
364 actgcccgta cctttaccgg ccccgccacc tccttgcctac cccactcttg 250
366 aaaccacagc tgttggcagg gtccccagct catgccagcc tcatctcctt 300
368 tcttgctagc ccccaaaagg cctccaggca acatgggggg cccagtcaga 350
370 gagccggcac tctcagtlgc cctctgggtg agttgggggg cagctctggg 400
372 ggccttggtc tgtgccatgg ctctgctgac ccaacaaaca gagctgcaga 450
374 gcctcaggag agaggtgagc cggctgcagg ggcacaggag cccctcccag 500
376 aatgggggaag ggtatccctg gcagagtcct ccggagcaga gtcccgatgc 550
378 cctggaagcc tgggagaatg gggagagatc ccggaaaagg agagcagtgc 600
380 tcacccaaaa acagaagaag cagcactctg tctgcacct ggttccatt 650
382 aacgccacct ccaaggatga ctccgatgtg acagaggtga tgtggcaacc 700
384 agctcttagg cgtgggagag gcctacaggg ccaaggatat ggtgtccgaa 750
386 tccaggatgc tggagtatat ctgctgtata gccaggctct gtttcaagac 800
388 gtgactttca ccatgggtca ggtgggtgtc cgagaaggcc aaggaaaggca 850
390 ggagactcta ttccgatgta taagaagtat gccctcccac ccggaccggg 900
392 ctacaaacag ctgctatagc gcaggtgtct tccatttaca ccaaggggat 950
394 attctgagtg tcataattcc ccgggcaagg gcgaaactta acctctctcc 1000
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/724,341

DATE: 12/08/2000

TIME: 14:47:43

Input Set : A:\P1805R1.txt

Output Set: N:\CRF3\12082000\I724341.raw

L:16 M:282 W: Numeric Field Identifier Missing, <140> CURRENT APPLICATION NUMBER: is Added.